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APPLICATION 1	<b>NO</b> .	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/753,337	_	01/09/2004	David Alan Brown	79115-3 /aba	7111	
7380	7590	06/07/2005	•	EXAM	EXAMINER	
		R/FETHERSTONE	LAM, TUA	LAM, TUAN THIEU		
	X 2999, ST <i>A</i> METCALFE		ART UNIT	PAPER NUMBER		
OTTAW	A, ON K1	P5Y6	2816	2816		
CANAD	A		DATE MAILED: 06/07/2005			

Please find below and/or attached an Office communication concerning this application or proceeding.

				H.				
		Application No.	Applicant(s)					
Office Action Summans		10/753,337	BROWN ET AL.					
	Office Action Summary	Examiner	Art Unit					
		Tuan T. Lam	2816					
Period fo	The MAILING DATE of this communication or Reply	on appears on the cover sheet t	vith the correspondence address -	•				
THE - External control	MAILING DATE OF THIS COMMUNICAT ansions of time may be available under the provisions of 37 (or SIX (6) MONTHS from the mailing date of this communicatie e period for reply specified above is less than thirty (30) days to period for reply is specified above, the maximum statutory ure to reply within the set or extended period for reply will, by reply received by the Office later than three months after the led patent term adjustment. See 37 CFR 1.704(b).	ION.  CFR 1.136(a). In no event, however, may a con.  s, a reply within the statutory minimum of the period will apply and will expire SIX (6) MC at a context of the course the application to become a context.	reply be timely filed  irty (30) days will be considered timely.  NTHS from the mailing date of this communica	ntion <sub>.</sub>				
Status								
1) 又	Responsive to communication(s) filed on	26 April 2005.						
		This action is non-final.						
3)	Since this application is in condition for a	tters, prosecution as to the merits	s is					
	closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.							
Disposit	ion of Claims							
4)🛛	Claim(s) 2-27 is/are pending in the applic	ation.		٠				
	4a) Of the above claim(s) is/are withdrawn from consideration.							
5)🖂	Claim(s) 2-5,8 and 10-27 is/are allowed.							
6)⊠	Claim(s) 6 is/are rejected.							
7)🛛	Claim(s) 7 and 9 is/are objected to.							
8)□	Claim(s) are subject to restriction a	and/or election requirement.						
Applicat	ion Papers							
9)[	The specification is objected to by the Exa	aminer.	•					
	The drawing(s) filed on <u>09 January 2004</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.							
	Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).							
11)	The oath or declaration is objected to by t							
Priority (	under 35 U.S.C. § 119							
	Acknowledgment is made of a claim for fo ☐ All b)☐ Some * c)☐ None of:	reign priority under 35 U.S.C.	§ 119(a)-(d) or (f).					
	1. Certified copies of the priority docu	ments have been received.						
	2. Certified copies of the priority docu	ments have been received in	Application No					
	<ol> <li>Copies of the certified copies of the application from the International B</li> </ol>		n received in this National Stage					
* 5	See the attached detailed Office action for		t received.					
Attachmen	at(s)							
	ce of References Cited (PTO-892)	4) Interview	Summary (PTO-413)					
	ce of Draftsperson's Patent Drawing Review (PTO-94	8) Paper No	(s)/Mail Date					
	mation Disclosure Statement(s) (PTO-1449 or PTO/Ser No(s)/Mail Date	5B/08) 5) \( \bigcirc \text{Notice of } \\ 6) \( \bigcirc \text{Other: } \\ \bigcirc \text{Notice of } \\ \end{align*}	Informal Patent Application (PTO-152)					

#### **DETAILED ACTION**

This is a response to the amendment filed 4/26/2005. Claims 2-27 are pending and are under examination.

### Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 6 is rejected under 35USC 102(b) as being anticipated by Matsui et al. (USP 6,115,266). Figure 1 shows a digital controller for producing a control pulse signal with a variable frequency and duty cycle (output of the digital control 70) dependent upon a first digital value (output of A/D 721 of figure 3) representing a first variable (AS1) comprising a digital circuit (714 of figure 3) responsive to the first digital value (output of the A/D 721 of figure 3) for producing second and third digital values (outputs of the counters 731 and 732 of figures 3 and 5) representing an on-time (pulse t1 to t2 output from counter 732 shown in figure 5) of a pulse and an off-time (pulse t3 to t4 output from the counter 731 shown in figure 5) between pulses of the control pulse signal, and a timing control circuit (734 and 735 of figure 3) responsive to the second and third digital values to produce the control pulse signal (output of latch circuit shown in figure 5) with pulses dependent upon said on-time and off-time, wherein the second and third digital values are produced so that a sum of the on-time and the off-time varies, depending on the first digital value (output of A/D converter), within a predetermined range including a predetermined nominal period of the control pulse signal (the sum of t1-t2 and

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t3 and t4 is within the period (t1 to t5) of the control pulse signal (output of the latch circuit shown in figure 5), further digital circuit (715 of figure 3) responsive to a further digital value (output of the A/D 722) representing a second variable (AS2) for modifying the first digital value in dependence upon the further digital value as called for in claim 6.

## Allowable Subject Matter

- 2. Claims 7 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
- 3. Claims 2-5, 8 and 10-27 are presently allowed.

#### Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In this regard, applicant's cited prior art has been carefully considered.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T. Lam whose telephone number is 571-272-1744. The examiner can normally be reached on Monday to Friday (7:30 am to 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TIMOTHY P. CALLAHAN can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VTuan T. Lam

**Primary Examiner** 

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6/01/2005